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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,554	04/09/2004	Yuuki Watanabe	09792909-5863	1305

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EXAMINER

CHIN, CHRISTOPHER L

ART UNIT	PAPER NUMBER
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1641

MAIL DATE	DELIVERY MODE
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03/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/821,554	Applicant(s) WATANABE, YUUKI	
	Examiner Christopher L. Chin	Art Unit 1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-7 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-7, and 11-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/3/08 has been entered.

Claim Rejections - 35 USC § 112

2. Claims 1, 3, 5-7, and 11-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 12-16 are vague. These claims are not clear as to how a sensing portion comprising a surface plasmon resonance circuit can measure changes in weight of the detecting portion. A surface plasmon resonance circuit cannot provide measurement of weight, let alone measure changes in weight. It would appear that only an oscillating circuit and a frequency measuring device could measure changes in weight.

Claim 3 is vague because it is redundant. The detecting portion in claim 1 already states that it has a plurality of binding sites.

Claim 12 is vague. The preamble of the claim is not consistent with the body of the claim. The body of the claim is directed to determining if a steric hindrance exists but the preamble of the claim is directed to measuring changes in a target. The claim is also not clear as to what is causing the steric hindrance. The claim is also not clear as to how steric hindrance is determined from the presence, absence or distribution of the target bound to the detecting portion.

Claim 14 is vague. The preamble of the claim is not consistent with the body of the claim. The body of the claim is directed to determining if a steric hindrance exists but the preamble of the claim is directed to measuring changes in a biological substance. The claim is also not clear as to what is causing the steric hindrance. The claim is also not clear as to how steric hindrance is determined from the presence, absence or distribution of the biological substance bound to the detecting portion.

Claim 16 is vague. The preamble of the claim is not consistent with the body of the claim. The body of the claim is directed to determining if a steric hindrance exists but the preamble of the claim is directed to measuring changes in a secretion product. The claim is also not clear as to what is causing the steric hindrance. The claim is also not clear as to how steric hindrance is determined from the presence, absence or distribution of the secretion product bound to the detecting portion.

3. Claims 1, 3, 5-7, and 11-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably

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convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The originally filed specification does not provide support for a sensor device comprising a sensing portion that is a surface plasmon resonance (SPR) circuit which can measure changes in weight in the sensing portion or methods using such a sensor device. The specification appears to provide support for a sensing portion comprising an oscillating circuit in combination with a frequency measuring circuit which can measure changes in weight. Applicants are required to point to specific sections of the specification that teach a SPR circuit that can measure changes in weight.

4. Claims 1, 3, 5-7, and 11-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The instant specification is not enabled for a SPR sensor that can measure changes in weight on a sensor surface or methods that use such a SPR sensor as recited in claims 1, 3, 5-7, and 11-16. Conventional SPR sensors can detect or measure how much analyte is bound to a sensor surface by detecting changes in refractive on the sensor surface or as pointed out in the instant specification on page 9, changes in dielectric constant on the sensor surface. There does not appear to be any way for a

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SPR sensor to measure weight changes given how a SPR sensor works. Changes in refractive index or dielectric constant do not appear to be indicators of weight change.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher L. Chin whose telephone number is (571) 272-0815. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Shibuya can be reached on (571) 272-0806. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher L. Chin/
Primary Examiner, Art Unit 1641

3/15/09